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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/961,114 | 09/20/2001 | Donald V. Perino | RB1-035USC3 | 4507 |

29150 7590 11/22/2002
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EXAMINER

FIGUEROA, FELIX O

ART UNIT PAPER NUMBER

2833

DATE MAILED: 11/22/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/961,114 | PERINO ET AL. | |
| | Examiner | Art Unit | |
| | Felix O. Figueroa | 2833 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 September 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 68-90 is/are pending in the application.
- 4a) Of the above claim(s) 89 and 90 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 68-88 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

This application lacks the necessary reference to the prior application. A complete statement reading as shown in page 5 lines 6-10 of the Amendment B, filed on 09/13/02 (paper no.8), should be entered following the title of the invention or as the first sentence of the specification. Also, the current status of the parent non-provisional applications (whether patented or abandoned) should be included. If a parent application has become a patent, the expression "now Patent No. _____" should follow the filing date of the parent application. If a parent application has become abandoned, the expression "now abandoned" should follow the filing date of the parent application.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 70 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim, 70, it is unclear how the flexible insert can be located between the lead and the first side of the packaging material, if the lead extends from the first side of the packaging material. It is noted that in order for this to be possible the lead requires a C-shaped configuration.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 68, 69, 78, 79, 85 and 86 are rejected under 35 U.S.C. 102(e) as being anticipated by Bellomo et al. (US 5,419,712).

Bellomo discloses a chip package comprising: a packaging material (Fig.5) having a first side and a second side; a lead (34) extending from a first side of the packaging material; and a first clip portion (40 in Fig.5) extending from the second side of packaging material. Bellomo also discloses a second clip portion (on the opposite side of 40 in Fig.5) extending from a third side of the packaging material.

Regarding claim 78 and 86, Bellomo discloses the first and second clip portion being integral with the packaging material; and being flexible.

Regarding claim 79, Bellomo discloses the lead being a flexible material (i.e. metal).

Regarding claim 85, Bellomo discloses an integrated circuit (38) disposed in the package material.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 70-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bellomo in view of Cutchaw (US 4,293,175).

Bellomo discloses substantially the claimed invention except for the flexible insert. Cutchaw teaches the use of a flexible insert (110) interposed between the lead (98a) and the first side of the packaging material (92a) to provide a flexible contact with the mating element. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the package of Bellomo with a flexible insert interposed between the leads and the first side of the packaging material, as taught by Cutchaw, to provide a flexible contact with the mating element.

Regarding claim 71, Bellomo, as modified by Cutchaw, discloses substantially the claimed invention except for cylindrical shape. However, it would have been an obvious choice one having ordinary skill in the art to form the insert having a different shape, e.g. being cylindrical, since applicant has not disclosed that such shape solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with insert of Cutchaw.

Regarding claims 72 and 73, Cutchaw discloses the insert being of a compliant material, specifically an elastomer.

Regarding claims 74-75, Cutchaw discloses the lead having a substantially C-shape; and being compressible.

Claim 77 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bellomo in view of Taniguchi et al. (US 5,451,815).

Bellomo discloses substantially the claimed invention except for the use of support pins. Taniguchi teaches a chip package (10) having support pins (12a-d) extending from the packaging material to provide vertical support the package. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to for the chip package of Bellomo having support pins extending from the packaging material, as taught by Taniguchi, to provide vertical support the package.

Claims 80-83 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bellomo.

Regarding claim 80, Bellomo discloses substantially the claimed invention except for the specific material of lead. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use beryllium-cooper as the preferred material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Regarding claims 81-83, Bellomo discloses substantially the claimed invention except for the material of the packaging material. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a flexible

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material, e.g. silicon rubber, as the preferred material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Claims 87 and 88 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bellomo in view of Sonobe (US 4,636,022).

Bellomo discloses substantially the claimed invention except for the bottom-facing housing and the pocket. Sonobe teaches the use of a package (10) having a bottom-facing housing (see Fig.5) extending laterally from the packaging material and having a pocket, an end of the lead being disposed within the pocket when the lead is compressed, to protect the lead from external tampering. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the package of Bellomo having a bottom-facing housing extending laterally from the packaging material and having a pocket, as taught by Sonobe, to protect the lead from external tampering.

Response to Arguments

In response to applicant's argument about the rejection under 35 U.S.C. 112, second paragraph, on claim 70, it is noted that applicant pointed out some specific structure (e.g. C-Shape or a substantial curve shape), which is required in order to provide a functional apparatus. Thus, it is required that such language be included in the claim.

Applicant's arguments are moot in view of the new grounds of rejection.

Conclusion

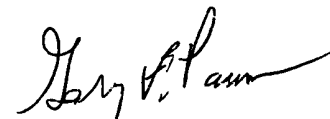
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kawakami (US 5,349,501) and Frankeny et al. (US 5,229,916) teach the use of inserts.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Felix O. Figueroa whose telephone number is (703) 308-0097. The examiner can normally be reached on Mon.-Fri., 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula Bradley can be reached on (703) 308-2319. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

ffr
November 19, 2002


Gary Paumen
Primary Examiner